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PROTECTIVE CLOTH AND GLOVES USING THIS CLOTH

Workers who handle cutting and sliding material such as sheet metal, rough from the shear, for example, are often wounded in the hands, despite the gloves with which they are provided.

If the thickness of the gloves is increased, to reinforce them, their use becomes fatiguing, and workers have a tendency to stop using them.

The present invention concerns, as new industrial products, a cloth which resists especially well destruction by cutting, and is especially suitable for the making of protective gloves.

The cloth according to the invention may be composed of both metal wires and textile threads.

The metal wires give the cloth a great resistance, while the textile threads give it flexibility and a certain adherence; moreover, these textile threads reduce the tendency of metal wires to cut each other by alternate friction and too sharp bending. The textile thread may possibly be replaced by a plastic thread, or the metal knit fabric with single or multiple wire may be covered with a suitable elastomer or plastic.

The metal wires may, for example, be joined to the textile thread, or twisted, plaited or wrapped, each by a textile thread.

The cloth according to the invention may be obtained by weaving or knitting. In the first case, some of the threads of the warp may be metal, the others being textile, the threads of the woof being either metal or textile; as a variant, the wires of the warp may be metal and the threads of the woof textile, or vice versa.

The metal wires are preferably of a metal with high mechanical

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resistance, for example, of steel, stainless or galvanized, plastified or enameled.

The textile threads may be natural, for example, of cotton, wool or linen, mineral, for example, of asbestos or glass, or synthetic, for example, of polyamides or similar materials.

The cloth according to the invention may be impregnated or covered with an elastomer or plastic material; this material holds the metal wires and also prevents the ends of the wires, which may break with wear, from wounding the wearer. The elastomer or plastic material, impregnating or covering the cloth, may possibly contain an abrasive or short fibers, so as to make the cloth more non-skid, and improve its resistance to cutting; it may also be porous or expanded, so as to increase the flexibility of the cloth, decrease its weight and give it a better adherence, by cupping effects, on smooth or greasy surfaces. The impregnation material may be made fireproof by additives known for this purpose.

The cloth according to the invention may be used for making, for example, chest protectors, leggings, aprons, foot coverings, which can be used against impacts, cuts or hot metal sprays, or again, for forming "accordeons" which can protect the slides and pillars of machine tools.

It finds, however, one particularly interesting use in the obtaining of protective gloves.

The glove according to the invention is distinguished by the fact that its inner surface is of composite cloth of the type described above, while its outer surface is of a textile cloth.

In one advantageous mode of execution of the invention, the inner surface of the glove is itself double-walled, the inner wall being of a textile cloth.

There is described below, by way of example and not limitation, one mode of execution of a protective glove according to the invention, with reference to the attached drawing, in which:

Fig. 1 is a plane view of the glove.

Fig. 2 is a view on a large scale of the inner wall of this glove.

Fig. 3 is a view in cross section of a portion of this glove.

As represented in the drawing, the glove according to the invention includes two textile walls 1 and 2, which are sewed together over their edges, as indicated in 3.

The inner wall 2 is covered with a wall 4, which is formed by knitting of a textile thread 5, joined with a metal wire 6, the knit having then been plastified. The edge of this wall is covered with a padding 7, and the latter is sewed to the walls 1 and 2, as indicated in 3.

Obviously, the invention is not to be considered as limited to the mode of execution described and represented, but, on the contrary, it covers all variants.

Patent Claim

The invention concerns:

1. As new industrial products, a cloth distinguished by the following points, taken alone or in combinations.
 - a. It is composed of both metal wires and textile threads.
 - b. The metal wires are joined to the textile threads.
 - c. The metal wires are twisted, plaited or wrapped, each on a textile thread.
 - d. It is impregnated or coated with an elastomer or plastic material.
 - e. This elastomer or plastic material contains an abrasive or short fibers.

f. This elastomer or plastic material is porous or expanded.

2. A protective glove, distinguished by the following points, taken alone or in combination:

a. Its inner surface is of composite cloth of the type described in Paragraph 1 above, while its outer surface is of a textile cloth.

b. The inner surface of the glove is itself double-walled, the inner wall being of a textile cloth.

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